



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/528,730      | 03/22/2005  | Oliver Brasse        | 2002P03695WOUS      | 8582             |

7590 08/03/2010  
Siemens Corporation  
Intellectual Property Department  
170 Wood Avenue South  
Iselin, NJ 08830

|          |
|----------|
| EXAMINER |
|----------|

ELAHEE, MD S

|          |              |
|----------|--------------|
| ART UNIT | PAPER NUMBER |
|----------|--------------|

2614

|           |               |
|-----------|---------------|
| MAIL DATE | DELIVERY MODE |
|-----------|---------------|

08/03/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

|                              |                                      |                                      |  |
|------------------------------|--------------------------------------|--------------------------------------|--|
| <b>Office Action Summary</b> | <b>Application No.</b><br>10/528,730 | <b>Applicant(s)</b><br>BRASSE ET AL. |  |
|                              | <b>Examiner</b><br>MD S. ELAHEE      | <b>Art Unit</b><br>2614              |  |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2010.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 12-25 and 27-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 12-25 and 27-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Reopening of Prosecution-New ground of Rejection After Appeal***

1. In view of the appeal Brief filed on 03/29/2010, PROSECUTION IS HEREBY REOPENED. The rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 12, 13, 24, 27-30, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack et al. (U.S. Pub. No. 2002/0136384) in view of Needham et al. (U.S. Patent No. 6,970,926).

Regarding claims 12, 29 and 30, with respect to Figures 1-5, McCormack teaches a method for handling digital sound sequences in a telecommunications system having a call server 52 in Fig.5 [i.e., PBX] comprised of a PC/connected device/ built-in MOH server [i.e., working memory], and a switch device, the method comprising:

storing digital sound sequences on the PC/connected device/ built-in MOH server [i.e., working memory] of the call server 52 in Fig.5 [i.e., PBX] (page 4, paragraph 0076);

McCormack further connecting a plurality of telecommunication terminals to the call server 52 in Fig.5 [i.e., PBX] (fig.2,5);

McCormack further teaches holding a connection request from at least one telecommunication terminal requesting a connection to another communication terminal (page 3, paragraph 0059, page 4, paragraphs 0069-0071, 0076, 0078);

McCormack further teaches the control function/instruction of the call server 52 in Fig.5 [i.e., PBX] accessing the working memory of the control function (page 4, paragraph 0076); and

McCormack further teaches that the switch device of the PBX transmitting the digital sound sequences from the working memory to the at least one telecommunication terminal while the connection request of the at least one telecommunication terminal is being held (page 3, paragraph 0059, page 4, paragraphs 0069-0071, 0076, 0078). (Note; In paragraphs 0076, 0078, McCormack teaches music or video [i.e., digital sound sequences] stored on PC/connected device/ built-in MOH server [i.e., working memory] of the call server 52 in Fig.5 and this call server 52 is in the form of PBX. When a call from one of sets 50 in Fig.5 [i.e., communication terminal] has been placed on hold, the call server 52/PBX is switching the output/ music or video [i.e., digital sound sequences] of the MOH to the one of the sets [i.e., communication terminal] while the connection request of one or more communication terminals is being held.)

McCormack further teaches that the control software/control module running on the server control the operation of the server (page 5, paragraphs 0082,0083). However, McCormack does not specifically teach that the call server comprises a CPU and the CPU 304 is connected to

a working memory. Needham teaches that the call server 206 in Fig.3 comprises a CPU and the CPU is connected to a memory 306 [i.e., working memory] (page 4, paragraph 0030). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack to incorporate the call server comprising a CPU which is connected to a working memory in McCormack's invention as taught by Needham. The motivation for the modification is to do so in order to provide control the functions of a server/PBX by a single CPU such that the call control function of the server/PBX can be achieved efficiently.

Regarding claim 13, McCormack, as applied to claim 12, teaches that the CPU performs a data transfer of the stored digital sound sequences between the working memory and switching network and the working memory and the switch device for the switch device to transmit the digital sound sequences to the at least one telecommunication terminal while the connection request of the at least one telecommunication terminal is being held, the switch device being comprised of at least one switch or at least one PCM switch (page 1, paragraph 0002, page 3, paragraphs 0059, 0061, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

Regarding claim 24, McCormack, as applied to claim 12, teaches that digitizing sound sequences and storing the digitized sound sequences in the working memory by at least one component of the telecommunications system (page 3, paragraph 0059, page 4, paragraphs 0069-0071, 0076, 0078).

Regarding claim 27, McCormack, as applied to claim 12, teaches that the digital sound sequences are Music on Hold, voice sequences, or signal tones (page 3, paragraph 0059, page 4, paragraphs 0069-0071, 0076, 0078).

Regarding claim 28, McCormack, as applied to claim 12, teaches program code and/or data of telecommunications subscribers being stored in the working memory (fig.7,8; page 3, paragraph 0059, page 4, paragraphs 0069-0071, 0076, 0078).

1. Claims 14-23, 25, 26 and 31-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack et al. in view of Needham et al. further in view of Moran (U.S. Patent No. 4,370,743).

Regarding claims 14, 15 and 32, McCormack, as applied to claims 12, 13 and 30, teaches that data is transferred serially in packets between the PBX and the telecommunication terminal being held (fig.5; page 3, paragraphs 0059, 0061-0062, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

However, McCormack in view of Needham does not specifically teach CPU connected to a time slot assigner (TSA) such that the TSA is configured to assign the digital sound sequences to programmed timeslots. Moran teaches CPU connected to a time slot assigner (TSA) such that the TSA is configured to assign the digital sound sequences to programmed timeslots (col.6, lines 1-22). Thus, it would have been obvious to one of ordinary skill in the art at the time the

invention was made to modify McCormack in view of Needham to incorporate the feature of a time slot assigner (TSA), connected to CPU, configured to assign the digital sound sequences to programmed timeslots in McCormack's invention in view of Needham's invention as taught by Moran. The motivation for the modification is to do so in order to provide sound within a particular time.

Regarding claims 16 and 17, McCormack, as applied to claims 14 and 15, teaches supporting a packet-by-packet data transfer of the digital sound sequences (page 3, paragraphs 0059, 0061-0062, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

However, McCormack in view of Needham does not specifically teach that the TSA is comprised of a FIFO shift register. Moran teaches that the TSA is comprised of a FIFO shift register (ccol.5, lines 31-51, col.6, lines 1-22, col.8, line 61-col.9, line 18). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack in view of Needham to incorporate the feature of the TSA comprising a FIFO shift register in McCormack's invention in view of Needham's invention as taught by Moran. The motivation for the modification is to do so in order to provide a better service to a call.

Regarding claims 18 and 20, McCormack, as applied to claims 12 and 13, teaches the CPU to perform the transfer of the digital sound sequences (page 3, paragraphs 0059, 0061-0062, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

However, McCormack in view of Needham does not specifically teach a microcontroller connected to the CPU such that the microcontroller is initialized by the CPU to perform a



transfer. Moran teaches a microcontroller connected to the CPU such that the microcontroller is initialized by the CPU to perform a transfer (fig.1; col.5, lines 18-30). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack to incorporate the feature of a microcontroller connected to the CPU such that the microcontroller is initialized by the CPU to perform a transfer in McCormack's invention in view of Needham's invention as taught by Moran. The motivation for the modification is to do so in order to provide fast processing service by a CPU.

Regarding claim 19, McCormack in view of Needham further in view of Moran, as applied to claim 18, does not specifically teach that the microcontroller is a Direct Memory Access (DMA) controller. Examiner notes that the microcontroller as a Direct Memory Access (DMA) controller is well known in the art. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack in view of Needham further in view of Moran to incorporate the feature of the microcontroller as a Direct Memory Access (DMA) controller in McCormack's invention in view of Needham's invention further in view of Moran's invention in order to provide quick data retrieval control from a memory.

Regarding claim 21, McCormack, as applied to claim 21, teaches that the control function requests the microcontroller to set the start address of the digital sound sequences in the working memory in order to play back the digital sound sequences (page 3, paragraphs 0059, 0061-0062, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

However, McCormack in view of Needham does not specifically teach that the CPU requests the microcontroller to set the start address of the digital sound sequences in the working memory and to set the destination address in the FIFO shift register of the TSA. Moran teaches that the CPU requests the microcontroller to set the start address of the digital sound sequences in the working memory and to set the destination address in the FIFO shift register of the TSA (fig.1; col.5, lines 31-68). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack in view of Needham to incorporate the feature of the CPU requesting the microcontroller to set the start address of the digital sound sequences in the working memory and to set the destination address in the FIFO shift register of the TSA in McCormack's invention in view of Needham's invention as taught by Moran. The motivation for the modification is to do so in order to properly play back sound/audio message to a user.

Claims 22, 23 and 33 are rejected for the same reasons as discussed above with respect to claims 14, 16 and 21. Furthermore, McCormack, as applied to claims 18 and 21, teaches the CPU requests to set the destination address in the working memory for recording sound sequences (page 3, paragraphs 0059, 0061-0062, page 4, paragraphs 0069-0071, 0073, 0076, 0078).

Regarding claim 25, McCormack, as applied to claim 12, in view of Needham does not specifically teach that at a predefined filling level of the FIFO shift register, the TSA is configured to transmit an interrupt command the CPU to start or to stop a new data transfer.

Art Unit: 2614

Moran teaches that at a predefined filling level of the FIFO shift register, the TSA is configured to transmit an interrupt command the CPU to start or to stop a new data transfer (fig.1; col.5, lines 31-68). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify McCormack in view of Needham to incorporate the feature of the time slot assigner (TSA) commanding the CPU by an interrupt command to start or to stop a new data transfer at a predefined filling level of the FIFO shift register in McCormack's invention in view of Needham's invention as taught by Moran. The motivation for the modification is to do so in order to stop recording data in memory when the memory is full.

Claim 31 is rejected for the same reasons as discussed above with respect to claims 14 and 16.

### ***Conclusion***

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MD S. ELAHEE whose telephone number is (571)272-7536. The examiner can normally be reached on MON-FRI.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, FAN TSANG can be reached on (571)272-7547. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Art Unit: 2614

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Fan Tsang/

Supervisory Patent Examiner, Art Unit 2614

/MD S ELAHEE/

MD SHAFIUL ALAM ELAHEE

Primary Examiner

Art Unit 2614

August 2, 2010